thetech.com

Volume 139, Number 5



THU: 27° F | 14° F
Mostly Sunny
FRI: 37° F | 24° F
Sunny
SAT: 37° F | 24° F
Sunny

Thursday, March 7, 2019

# Worker killed, two others injured in Vassar site accident

District attorney's office: 'material collapsed down on top of workers'

By Jessica Shi

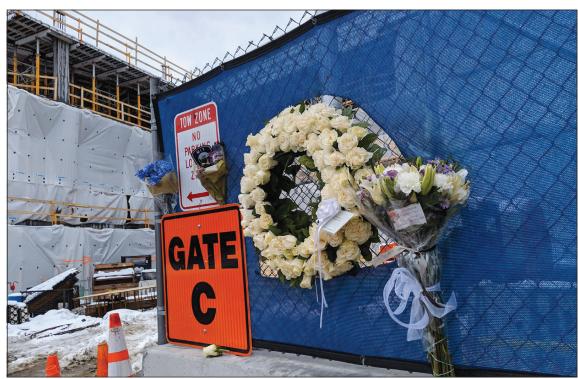
A construction worker was killed and two others were injured in an accident at MIT's Vassar Street dormitory construction site Feb. 28.

"The preliminary investigation suggests that a crew was working on a lower floor when material collapsed down on top of workers from an above floor," a statement from the Middlesex County district attorney's office Feb. 28 said.

Three workers were transported to a local hospital after the incident, which occurred around 3 p.m. Feb. 28, according to the statement. One worker, a 41-year-old man from Taunton, later died. The others sustained non-life-threatening injuries.

MIT Police, Massachusetts State Police assigned to the district attorney's office, and the federal Occupational Safety and Health Adminis-

Construction, Page 2



ALEX SANDBERG —THE TECH

A construction accident at the New Vassar dormitory construction site killed one worker and injured two others Feb. 28

# Protesters gather against College of Computing celebration Feb. 28

Speakers point to former Sec. of State Kissinger's actions in Vietnam War, MIT's involvement in defense research

By Zoe Sheill and Whitney Zhang

Students, faculty, and members of the local community protested outside the student center Feb. 28 against the College of Computing celebration. The protesters decried speaker Henry Kissinger as a war criminal, claimed donor Stephen A. Schwarzman profiteered from the 2008 housing crisis, and attacked MIT for its involvement in defense research.

The protest was led by Alonso Espinosa-Domínguez '20 and Husayn Karimi'19 and included speakers such as Bryan Garvey from Massachusetts Peace Action,

Gabby Ballard '19 and Alia Husain Rizvi '22 from the Student Worker Alliance, and Arif Hussain from Coalition for a Democratic India.

According to an email to *The Tech* from Karimi, the protest lasted from 2:30–4:00 p.m., and around 150 people were at the protest at its height, while about 300 people in total filtered in and out.

On the landing, a one-story tall plastic inflatable missile read "complicit." Behind it, a large sign on the second floor windows of the student center read "Celebrating Complicity with a Billionaire and War Criminal," in reference to Schwarzman and Kissinger, respectively.

Protesters held up signs such as "Inviting a human rights violator to talk about ethics. Does not compute," "MIT serves imperialism," and "MIT stop supporting genocide." At intermittent points, Espinosa-Domínguez and Karimi led protestors in chants, such as "Kissinger you can't hide, you committed genocide."

After the protest, students brought the inflatable missile and various other signs to President L. Rafael Reif's office.

Reif and Schwarzman spoke at 2:30 p.m., and Kissinger spoke at 3:10 p.m., both in Kresge Auditorium. Schwarzman, who donated \$350

**Protest,** Page 5

# 2019 KSA Culture Show VITTIE Sunity Lan. 3nd Vision in J

ALEX LI—THE TECH

Students from the Berklee College of Music perform at the MIT KSA Culture Show March 3.

### IN SHORT

The last day to **add a full-term subject** is tomorrow, March 8.

PE registration closes March 13 for undergraduates.

Submit nominations for the **MIT Awards** by March 15.

The comment period for the CUP's **Class of 2023 first-year proposal** is open until March 18.

All **fall 2019 housing forms** are currently open, including fall housing intention, fall housing switch lottery, ninth/tenth term housing requests, and meal plan selection.

Interested in **joining** *The Tech*? Stop by for dinner Sunday at 6 p.m. or email join@tech.mit.edu.

Send news and tips to news@tech.mit.edu.

# Kissinger speaks on ethics, regulation of AI

Kissinger spoke in discussion 'How the Enlightenment Ends' with Friedman

By Anshula Gandhi

Henry Kissinger spoke in "How the Enlightenment Ends," a discussion moderated by Thomas Friedman at the College of Computing celebration Feb. 28 in Kresge Auditorium. Kissinger published an eponymous piece about AI in *The Atlantic* in June 2018.

MIT's invitation of Kissinger, who served as national security advisor and secretary of state during Richard Nixon and Gerald Ford's presidential administrations, has been a subject of controversy among the MIT community. During Kissinger's talk, a protest was held nearby on the steps of the student center. A banner above the protest read, "Celebrating Complicity with a Billionaire and War Criminal."

In the talk, Kissinger argued that machines aren't governed by

ethical or philosophical norms. "Right now, technology is way ahead of the humanists," said Kissinger during the talk. "You have science ... without having a philosophical framework within which to put [technology]."

Kissinger's *Atlantic* article cited an AI chatbot named Tay which "proved unable to define the imperatives of 'friendly' and 'reasonable' language installed by its instructors and instead became racist, sexist, and otherwise inflammatory in its responses."

Kissinger said during his talk that he became interested in AI after going to a conference in 2016. At the conference, Eric Schmidt, best known as former executive chairman of Google and later Alphabet Inc., encouraged him to attend a talk on the subject. Kissinger said he attended a talk on

Kissinger, Page 2

### MIDDLE SCHOOL TROUBLES

A student's side job as an exorcist is not easy. **ARTS, p. 3** 

### INTRODUCTION TO REAL ANALYSIS

On upper bounded sets. **FUN, p. 7** 



### WHEN GUY MEETS

Indie film turned musical mounted on stage.

ARTS, p. 3

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### OSHA yet to release investigation update

Construction, from Page 1

tration are actively conducting an investigation, the statement said.

As of March 5, the OSHA has not released further details about the investigation, Richard Amster, director of campus construction at MIT, wrote in a statement emailed to *The Tech*.

The dorm is being built by Walsh Brothers, a Boston construction firm. After the OSHA determined that the site could be reopened, the Walsh Brothers did so, the statement continued.

"I am deeply saddened to learn about the accident and the passing of a person who was working on the construction site on our campus," Israel Ruiz SM '01, executive vice president and treasurer of MIT, wrote in a statement emailed to *The Tech* Feb. 28.

"The thoughts of the MIT community are with the family and other loved ones close to him at this difficult time. We are also very concerned about the others injured and are hoping for their full recovery," Ruiz continued.

### Kissinger expresses amazement at AlphaGo

Kissinger, from Page 1

AlphaGo, the first computer program to beat a professional human Go player.

Kissinger expressed bewilderment at how the AlphaGo machine could, "by playing with itself, come up with a style of chess [sic] that has never been played before."

"The input was something everybody had seen, and the output was something that had never

been seen before," Kissinger said at the talk. "We need to understand that process."

Kissinger discussed his reaction upon learning that some self-driving cars inch forward in traffic at a stoplight: "Where do they learn that? That's not in their instructions." (Such cars are either directly programmed to do so, or otherwise would have learned to do so from training data on other drivers doing the same thing.)

Friedman asked Kissinger if, based on his experience with nuclear weapons regulations, he saw a similar need to regulate AI. Kissinger replied that arms control was a "theory of numbers" based on reducing the number of arms each country had. However, he said "the transparency that was essential for arms control would be very hard to establish" in AI and sharing information will become more complicated; therefore, "the oth-

er side's ignorance is one of your best weapons."

Friedman also asked Kissinger if he thought AI was the "end of democracy," citing countries such as Iran and China which are gathering massive amounts of data on their own populations. Kissinger responded, "AI makes it possible to supervise your population ... and to do it instantaneously." Kissinger worried "how to keep good ideas from being dominated by dangerous ideas."

Established 1881





### **Mob Psycho 100** and the problem of being a hero

A middle school esper deals with his psychic powers

Mob Psycho 100 II

**Studio Bones** 

Jan. 7

13 episodes

By Ivy Li and Johnson Huynh

Winter 2019 is off to a great start with anime series like Yakusoku no Neverland, Dororo, and of course, Mob Psycho 100 II. This is the first of many articles ahead in The Tech's new anime column, reviewing seasonal anime and discussing anime trends and culture. We'll be talking solely about the first three episodes of Mob Psycho 100 Season Two to avoid spoiling more recent episodes, but if you haven't seen the first season, we recommend you do so now. Inevitable spoilers ahead.

Shigeo Kageyama, also known as Mob, is no One Punch Man. Mob is an unremarkable 14-year-old boy: he has a bowl cut, a crush on a girl in his class, an inability to speak about his feelings, and, did I forget, he is an esper who works for the con artist (with a heart of gold) Reigen Arataka to exorcise spirits with his psychic abilities. We open to a second season of episodic monster-of-the-week stories mixed with sliceof-life moments.

In spite of Mob's insane psychic abilities, the anime never forgets to include his regular life as well. We see his daily struggles as a middle school student: fitting in, talking to his crush, and being a good person. These scenes are sprinkled all throughout the first few episodes, reminding us that Mob is just as much a regular middle schooler as he is an exorcist.

I could talk extensively about how much I love Mob Psycho 100, its characterization, its subtle satire of the shonen genre, but its winning attribute is Studio Bones's stellar animation work. They even brought in a paint-on-glass animation specialist to animate some of the spirits in Season One and the deceivingly simple ED (that we're still jamming along to) featuring one of the character's morning routines. Fight scenes are a visual feast of competing styles: from bright colors to sharp animation to rough sketch-like linework, the show knows how it wants to translate this story from manga to animation and how to tell this story with the greatest emotional impact. The attention paid to fight choreography, animation style, and film angle is a sight to behold as the series blends different genres into one.

A simple comparison in the animation style from the first two episodes in Season Two makes this clear. In the first, Mob fights the parasitic spirit Wriggle Wriggle, a crazed hurricane composed of multiple plant roots, animated with frenzied "camera motion" and low angle shots, illustrated in the rural browns and bright oranges of a farmer's fields. The second fight resembles a scene from a horror film with its dark, monochromatic color palette and sharply jagged linework - Mob and another esper fight the urban legend Dragger, a slitmouthed woman who drags her victims into the forest to kill them.

The anime often subverts shonen tropes, but when it does embrace shonen staples like epic fight scenes, the animation makes them really worth it. Mob Psycho 100 is an anime without much focus on particular villains. Mob's greatest enemy is his own timidity because he knows that his psychic powers won't help him get physically stronger or earn the attention of his crush. He rectified this during the first season by joining the Body Improvement Club, a group of muscular jocks who are not bullies but Mob's greatest supporters, and it's no different this season. Mob jogs and exercises with them, and they help him discover his own strength and stand by him against the real bullies. Reigen and the green spirit Dimple both protect Mob through their selfishness but also respect and care for Mob as a person.

As we transition into the show's second season, the animation team still shows signs of these delightful characters and simple themes. One episode, in particular, caught our attention with its focus on Mob's relationships with his schoolmates, providing a more intimate look on our protagonist. The show's general humanity and moralistic, pacifistic outlook are refreshing in a genre of anime that focuses on powerups over real character growth, epic fight scenes over mundane, everyday life, and the supernatural instead of the real. This season is shaping up to be an exciting sequel to the first one.

Watch new episodes of Mob Psycho 100 II on Crunchyroll.

Want to contribute or have anime suggestions on what we should review next? Contact arts-editors@the-tech.mit.edu.

### THEATER REVIEW

### Falling slowly in love with *Once*

The tender and heartbreaking musical features memorable musical performances



MAGGIE HALL PHOTOGRAPHY

Nile Scott Hawver plays the Irish busker in Once.

By Ethan Vo

ASSOCIATE ARTS EDITOR

Once is a tricky musical to mount on stage. Every production has to contend with the high bar left by its source material, the highly acclaimed 2007 indie film which charmed audiences with its plaintive music and low-budget cinematography. The film's tale of romance between an Irish busker and a Czech immigrant is subtle and understated, posing another challenge to translate onto a stage without boring the nations, Once garnered accolades partly due to its quietness, which critics saw as a salve for the splashy excessiveness of musicals. Current productions, therefore, lose that alternative edge, since such aesthetics have become more mainstream and expected in a local theatre. Unfortunately, Speakeasy Stage's production of Once doesn't fully shrug off these issues, but the exceptional musical performances anchor the production and remind of the joys that only live theatre can provide.

My biggest gripe with this production audience. In both its film and stage incar- is Enda Walsh's book, which is unfortu- the production's fantastic musical per-

nately out of Speakeasy Stage's control. In adapting Once from screen to stage, Walsh extended the story to two acts by tacking on an additional 30 minutes of dialogue, mainly in the form of quips. While most of the humor lands, the additional material is usually to the detriment of the main romance. The character of Girl now plays more into the Manic Pixie Dream Girl archetype; her motivations are reduced to curing Guy's depression and loving him even though spending more time establishing her family situation would have led to a deeper characterization. The humor from the minor characters also distracts from the romance between the two leads, which already suffers because of the omission of the montage sequences in the film. This bloat leads to some awkwardness, such as pacing issues in the first act and the placement of the intermission.

Despite the efforts of the creative team, these issues hinder the development of a believable romance between Guy and Girl. Nile Scott Hawver as Guy struggles at the edges of his vocal range, which makes it difficult to believe why Mackenzie Lesser-Roy, who out-sings him, and other characters treat him as having a gifted voice. While the set cleverly evokes multiple locations at once, its static nature causes the slow parts of the musical drag, since there is only brick to look at. There are also some points which feel over-choreographed and distract from the narrative, such as the

musical number "Say It to Me Now." What forms the heart of the show is

### Once

**Book by Enda Walsh** 

Music and lyrics by Glen Hansard and Markéta Irglová

**Directed by Paul Melone** 

Calderwood Pavilion at the Boston Center for

**March 1–30** 

formances. For a show about how music bonds communities together, music is also the unifying element of its narrative. The music ranges from the hauntingly romantic "Falling Slowly," to the exuberant "When Your Mind's Made Up," and the memorably touching a cappella rendition of "Gold." These performances are powerful moments of live theatre and make the show worthwhile to see. By no means is Once at Speakeasy Stage a bad production. It is emotionally moving in a way that makes you want to return to it again and again, but it does not fully escape the film's reputation. If the film produces a continual tugging at the heartstrings, then this is a brief strumming that you wish would linger.

## Have something to say? Write opinion for *The Tech*!

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4 THE TECH
THURSDAY, MARCH 7, 2019





# College of Computing Protest

Students, alumni, and faculty outside Kresge Auditorium protest the College of Computing celebrations Feb. 28. The administration has come under fire for inviting controversial former Secretary of State Henry Kissinger as a speaker and appointing Dan Huttenlocher, who is on Amazon's board of directors, as the new college's dean.









Thursday, March 7, 2019

The Tech 5

### MIT Students Against War held 'AI Can't Fix This' teach-in

Protest, from Page 1

million for the college and is its eponym, is the chairman and CEO of the Blackstone Group. Kissinger served as national security advisor and secretary of state during Richard Nixon and Gerald Ford's presidential administrations.

Earlier that week, MIT Students Against War held a teach-in titled, "AI Can't Fix This: MIT, Imperialism, and the Future of AI." They also created a petition, which has since received 157 signatures. The petition included a list of demands, such as that MIT not use defense industry funding for the college and that MIT rescind Dean Dan Huttenlocher's appointment.

In an interview with *The Tech*, Espinosa-Domínguez pointed to Henry Kissinger sabotaging the 1968 Vietnam War peace treaty, which extended the war for an additional five years, and architecting a coup in Chile as reasons for the protest. Additionally, Espinosa-Domínguez said that MIT wanted to make the College of

Computing a "factory for the technical foot soldiers."

Karimi also mentioned concerns about defense industry funding in an interview with *The Tech.* "It seems very likely that the College of Computing will have a lot of research for military applications" and that "this is expected but distressing nonetheless," he said.

Alice Pote, a protest organizer and staff software engineer in the department of open learning, told *The Tech*, "Broadly the push for AI is part of a strategic shift for the U.S. Department of Defense to maintain in competition with rivals." She also decried Schwarzman for making "money off of the financial crisis" and called him a "slumlord."

Randy Morantes, another attendee and a member of the Smedley D. Butler Brigade Veterans for Peace, told *The Tech* he attended the protest because he had "a lot of reservations, questions about the things that Kissinger has done" and wanted "to learn more."

Karimi spoke about the importance of community involvement in decisions affecting MIT as a whole. "They're not going to think it's a threat unless we're sustaining our work," he said. Pote said the protest was "inspiring to see" and hoped for more similar events.

Editor's Note: Alia Husain Rizvi, a speaker at the protest, is an arts writer for The Tech. Fiona Chen, a protest organizer, is an opinion editor for The Tech. Their participation in the protest is independent of their Tech positions.



### **Solution to Windy**

rrom page 6														
G	Α	В	S			S	Α	Р	S		C	Α	M	Р
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### Solution to Seal from page 6

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5	3	6	1	2	4
3	1	4	5	6	2
2	6	3	4	5	1

### **Solution to Elephant**

8 5 9 6 1 7 2 4 3 4 7 6 3 2 9 8 1 5 2 1 3 4 5 8 6 9 7

3 8 5 9 4 6 1 7 2 7 9 4 2 8 1 5 3 6 1 6 2 7 3 5 9 8 4 6 4 7 1 9 2 3 5 8 9 3 8 5 6 4 7 2 1

5 2 1 8 7 3 4 6 9

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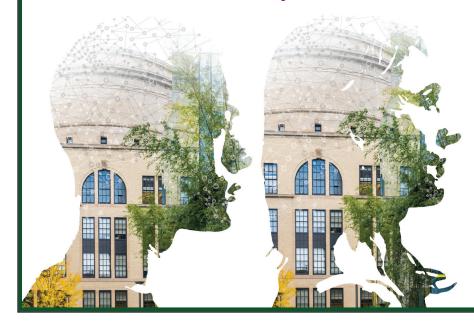
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# FUNFUNFUNFUNFUNFUNFUNFUNFUNFUN FUNFUNFUNFUNFUNFUNFUN

### Elephant Solution, page 5

			6		7		4	
		6		2				5
	1		4	5			9	
3						1		2
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1		2						4
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9				6		7		
	2		8		3			

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Solution, page 5

6÷	20×		18×		30×
		60×		3–	
24×			6		12×
5			2x		
3		9+		8+	
12×		12×		4-	

Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1-6. Follow the mathematical operations for each box.

### Windy by Sandy Fein

Solution, page 5

### **ACROSS**

- 1 Chatters
- 5 Drains of energy
- 9 Sleep in a tent
- 13 Muslims' Almighty
- 15 "Not guilty," for one
- 16 Turn \_\_ a new leaf 17 Mrs. George W. Bush
- 18 Egg-shaped
- 19 Very hard to find
- 20 Would-be rock stars' imaginary instruments
- 22 Grain in sushi
- 23 Shade tree
- 24 Ointment ingredient from wool
- 26 Circle segment
- 29 Bench or couch
- 32 Ship's distress call
- 33 Canoe or kayak
- 35 Actor Baldwin
- 37 Goes off, as an alarm
- 41 Flights that have just landed
- 44 What radiators give off
- 45 Black-and-white cookie

- 46 \_\_ so (nevertheless)
- 47 Nothing at all
- 49 Cotton-tipped stick
- 51 "I'd love to!"
- 52 Reached a high point, as
- a flood
- 56 HS senior's exam
- 58 500 sheets of paper
- 59 Selective Service classification panel
- 65 Prefix meaning "opposed
- 66 Make a donation
- 67 Take pleasure in
- 68 Beef or pork
- 69 Wicked
- 70 No longer fresh
- 71 Parakeets and poodles 72 Take a break
- 73 Rocks taken from mines

### **DOWN**

- 1 Glamorous party
- 2 Jai \_\_ (fast-moving sport)
- 3 Fuzzy image
- 4 Private's superior, for short

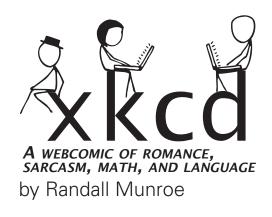
- 5 Dalmatian marking
- 7 Gem in an oyster

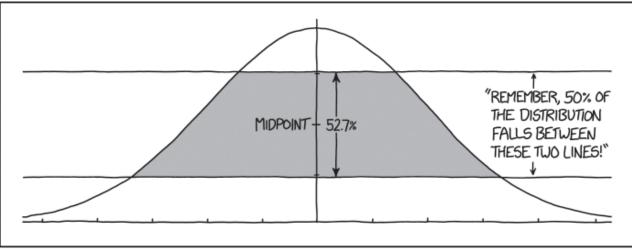
- 9 Causing erosion 10 To no \_\_ (useless)
- 14 Transports via truck
- 21 "In other words . . ."
- 25 "Me neither"
- 26 First-learned basics
- 27 Decisive defeat
- 28 Give a darn
- 30 Female choir voice
- 31 Rips (up)
- 34 Sends, as a radio message
- 36 Ship's personnel
- 39 Giddy delight
- 43 Cook in a barbecue
- ones)

- 6 Thomas \_\_ Edison
- 8 Taco chip dips
- 11 Parisian's "thank you"
- 12 Dress smartly

- 38 Admiral's employer
- 40 IRS IDs
- 42 Send forth, as a sound
- 48 Bookkeeper's book
- 50 \_\_ in the woods (innocent
- 14 18 19 22 34 52 53 54 62 | 63 | 64 65 68 69 70
- 52 Muscle spasm 53 Actress Zellweger
- 54 Patronize, as a café 55 Operate an auto
- 57 Lone Ranger's pal
- 60 Hertz competitor
- 61 Pool-table surface
- 62 A bit open, as a door
- 63 Actor's part 64 Changes the color of

### [2118] Normal Distribution



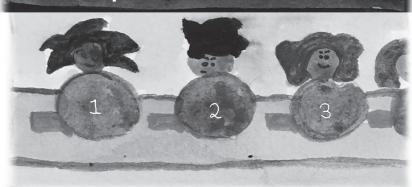


### Does every upper bounded set have a biggest element?

by Anshula Gandhi

Does every upper bounded set have a biggest element?

Sometimes sets are unbounded (like {1,2,3...} to infinity), and therefore have no biggest element.





That is, what if every number in the set is less than or equal to some upper bound we call "alpha"?



Oddly enough, no. You would think that because the elements of the set are upper bounded, there has to be a biggest element. But consider the set {0.9, 0.99, 0.999...}.

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O.9 0.99 0.999 0.9999

The elements in the set are all upper-bounded by 1, but there is no biggest element.

See more at anshula.com/realanalysis

8 THE TECH THURSDAY, MARCH 7, 2019

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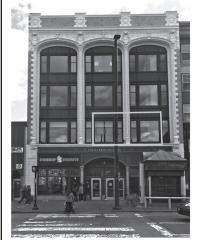
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